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Anthony Bruce Pike

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EXAMINER

NELSON, KERI JESSICA

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,752	<b>Applicant(s)</b> PIKE, ANTHONY BRUCE	
	<b>Examiner</b> KERI NELSON	<b>Art Unit</b> 3772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9,12,14-22 and 26-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,12,14-22 and 26-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/18/2010</u> .   | 6) <input type="checkbox"/> Other: _____                          |

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### **DETAILED ACTION**

This Office action is based on the arguments filed August 18, 2010 with a request for continued examination of application 10/561,752. The information disclosure statement filed August 18, 2010 has been considered by the examiner on May 13, 2011. Claims 26, 33, and 36 have been amended and claim 39 is newly presented; claims 1, 2, 4-9, 12, 14-22, and 26-39 are currently pending.

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 18, 2010 has been entered.

#### ***Declaration***

2. The Declaration under 37 CFR 1.132 filed August 18, 2010 is insufficient to overcome the rejection of claims 1, 2, 4-9, 12, 14-22, and 26-38 based upon the rejections as set forth in the last Office action because there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. See MPEP § 716.

3. The argument that the selection of the appropriate fabric by testing must be made by experimentation rather than presumed knowledge of the fiber fails to show that Applicant created a previously unknown fabric from either known or unknown fibers.

4. In response the argument that the DuPont airbags are not woven articles, the examiner disagrees. The DuPont publication specifically recites "Fiber/Fabric Process Optimization" on

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the first page which implies that it was known at that time to form a woven material from the disclosed fibers 470T743 and 350T749.

5. In response to the argument that the medical protection sheeting as claimed includes structural elements which are not met by the yarn alone, the examiner disagrees. The limitations “medical protection sheeting” and “patient contacting surface” not structural recitations but rather are recitations of the intended use of the claimed invention which must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In the instant case, the material taught by DuPont would include a surface that is capable of contacting a patient and use as a medical protection sheeting. There are no other structural limitations recited in the claims to distinguish over the prior art.

6. In response to the argument that the examiner’s interpretation of the term “linen” is not the reasonable meaning to those skilled in the art, the examiner disagrees. While the term “linen” may be construed to only be limited to “threads made from fibers of the flax plant”, Applicant has not expressly limited the use of the term “linen” to only this definition in the disclosure such that the claims may be interpreted more broadly to cover other definitions of “linen” such as “articles or garments made from linen or a similar cloth, such as cotton; bed sheets and tablecloths.” This argument is more narrow than what is recited in the rejected claims or disclosed in the specification.

7. In response to the argument regarding the difference between fibers, yarns, threads, weaving, and coatings, it is noted that while Applicant has recited a woven material made from yarns, there is no other structural limitations indicating how the various properties are achieved. In other words, Applicant has only defined a particular type of yarn (e.g., DuPont’s 470T743,

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350T749, and 98Wext/4) to be used in a woven material having a particular coefficient of friction and weight. However, Applicant has not defined a weave pattern of these yarns to achieve the claimed coefficients of friction or weight, and has not expressly precluded the use of coatings or the use of any other type of material. As pointed out in the declaration (#9, page 7), the properties of the fibers, the type and thickness of the threads, the number of threads per unit length in of the warp and weft directions, the pattern of the weave and its orientation, the presence or absence of any coating, all play a role in determining the friction properties of the resultant woven textile. Therefore, it appears that friction is merely a result effective variable that can be optimized from routine experimentation. Further, it is emphasized that Applicant has not recited any structural difference between the claimed invention and the prior art or why it would not have been obvious to modify the known materials and fibers to achieve the claimed material properties.

8. In response to the argument that the current application is concerned with the friction coefficients of the woven fabric and not the fiber-to-fiber or yarn-to-yarn coefficients, it is noted that the coefficient of friction of the fabric is determined by the type of yarn, weave pattern, etcetera, such that the a yarn or fiber having a particular coefficient of friction may also result in a woven fabric having the same coefficient of friction.

### ***Specification***

9. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Claims 26 and 33 each substantially recite the limitation “said coefficient of static friction is *within 20 percent* of said coefficient of dynamic friction”; however, there is insufficient support for this limitation in the original specification. Although the specification teaches that the coefficient of static friction

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should be no more than 20% greater than the coefficient of dynamic friction (page 7, line 18), this is not the same as “within 20 percent”. The phrase “no more than 20% greater” includes the end limit of 20% while the phrase “within 20 percent” excludes the end limit of 20%.

***Claim Rejections - 35 USC § 112, First Paragraph***

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 26 and 33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 26 and 33 each substantially recite the limitation “said coefficient of static friction is *within 20 percent* of said coefficient of dynamic friction”; however, there is insufficient support for this limitation in the specification as originally filed. While Applicant’s original disclosure does teach that “ $\mu_s$  should be no more than 20% greater than  $\mu_d$ ” (page 7, line 18), this is not the same as “within 20 percent” and the claim limitation is therefore considered new matter. Applicant is required to cancel the new matter in the reply to this Office action.

***Claim Rejections - 35 USC § 112, Second Paragraph***

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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13. Claims 19, 26, 29, 30, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

14. Claim 19 recites the limitation "said yarn"; however, there is insufficient antecedent basis for this limitation in the claim. For examination purposes, claim 19 has been interpreted to depend from claim 18 which first recites the limitation "a yarn".

15. Claims 26 and 33 each substantially recite the limitation "the medical protection sheeting further provided to comprise yarns having a linear density between 1000 and 40 decitex and a weight between 200 and 50 gm/m<sup>2</sup>". However, the phrasing of this limitation implies that the recited weight is of the yarn and not the sheeting as a whole contrary to remainder of the specification and claims. For examination purposes, the above limitation of claims 26 and 33 have been interpreted such that the claimed weight is of the fabric as a whole and not just of the claimed yarn.

16. Claims 29 and 30 each recite the limitation "wherein said sheeting has a linear density". However, Applicant has previous argued that linear density is determined by the fiber or yarn and not the sheeting as a whole. For examination purposes, the above limitation of claims 29 and 30 have been examined based on the yarn and not the sheeting consistent with the other claims.

17. Claims 22 and 32 are also rejected under 35 U.S.C. 112, second paragraph, for depending from a rejected base claim.

### ***Claim Rejections - 35 USC § 101***

18. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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19. Claims 26, 33, and 39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter because the claims are directed to a method or process that does not transform a particular article to a different state or thing, nor is it tied to a particular machine. See *In re Bilski* (Fed. Cir., 2007-1130, 10/30/2008) where the Federal Circuit Court held that method claims must pass the “machine-or-transformation test” in order to be eligible for patent protection under 35 U.S.C. 101. The only method steps recited in claims 26 and 33 are “providing a medical protection sheeting” having various material properties and “covering a patient’s skin with the medical protection sheeting”. Claim 39 only recites the steps of “limiting epidermal damage” and “providing a woven fabric”. These recited steps do not require a physical transformation and are not tied to a particular machine.

***Claim Rejections - 35 USC § 102***

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(f) he did not himself invent the subject matter sought to be patented.

21. Claims 1, 4, 5, 14, 15, 35, and 38 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. As best can be understood, the medical protection sheeting as claimed by Applicant is nothing more than a sheet of material providing the claimed properties that are found in woven materials of the fibers made by DuPont (470T743, 350T749, 98Wext/4) as disclosed by Applicant’s specification (page 2, lines 22-29;



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page 3, lines 15-19). It appears Applicant has not altered these materials to produce something new or different but rather merely claims functional language (i.e., “medical protection sheeting” and “patient contacting surface”) to distinguish an intended use of the material. Applicant has also failed to disclose any structure of the material other than the type of fibers used to form the material. Further, a product guide sheet published by DuPont on February 21, 2003, indicates that both 470T742 and 350T749 fibers were known and commercially available prior to Applicant’s filing date (see attached DuPont “Airbag Fiber Offerings”). Therefore, the invention encompassed by the rejected claims are directed to the materials made by DuPont rather than an invention made by Applicant. It is also noted that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

22. Claims 1, 4, 5, 14, 15, and 35 are rejected under 35 U.S.C. 102(a) as being anticipated by DuPont in their publication “Airbag Fiber Offerings”. DuPont discloses a woven material formed from nylon fibers 470T742 and 350T749 which Applicant has identified throughout the specification of the instant application as being successfully used to form the claimed low frictional material suitable for a medical protection sheeting. Although the DuPont publication does not expressly teach that the fibers have a linear density between 40 to 1,000 decitex, such properties would be inherent in the given fibers. Further, the limitations “medical protection sheeting” and “patient contacting surface” are recitations of the intended use of the claimed invention which must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In the instant case,

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the material taught by DuPont includes a surface that is capable of contacting a patient and use as a medical protection sheeting. There are no other structural limitations recited in the claims to distinguish over the prior art.

23. Claims 1, 2, 34, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Neilson (US Patent 3,849,813), as evidenced by Warner ("Fiber Science"). Neilson discloses a medical protection sheeting, used as bedding or a slide sheet, formed from a low frictional woven rayon material (10) having a patient contact surface (Figs. 1-2; column 1, lines 32-42 & 62-68; column 2, lines 1-4 & 47-53). The limitation "a coefficient of static friction *substantially* the same as its coefficient of dynamic friction" has been given the broadest reasonable interpretation since there is no clear indication of what range of values would be encompassed by the phrase "substantially the same". Therefore, for examination purposes, the above limitation has been understood such that a "substantially frictionless material" as disclosed by Neilson will have a low coefficient of static friction that is "substantially the same" as its low coefficient of dynamic friction. Further, rayon has a coefficient of static friction and a coefficient of dynamic friction between itself and linen of less than 0.4 as evidenced by Warner (Table 14.2). The term "linen" has been given the broadest reasonable interpretation to mean "articles or garments made from linen *or a similar cloth, such as cotton; bed sheets or tablecloths*" as defined by the online American Heritage Dictionary. In the instant case, Warner teaches that the coefficient of static friction and the coefficient of dynamic friction between rayon and rayon, from which garments and bed sheets may be made, is 0.35 and 0.26, respectively.

24. Claims 1, 2, 34, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Garner (US Patent 5,329,655), as evidenced by Warner ("Fiber Science").

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25. Regarding claims 1 and 34, Garner discloses a medical protection sheeting (15), used as bedding or a slide sheet, formed from a low frictional woven material having a surface capable of contacting a patient (column 3, lines 66-67; column 4, lines 15-22). The limitation “a coefficient of static friction *substantially* the same as its coefficient of dynamic friction” has been given the broadest reasonable interpretation since there is no clear indication of what range of values would be encompassed by the phrase “substantially the same”. Therefore, for examination purposes, the above limitation has been understood such that a “low frictional material” as disclosed by Garner will have a low coefficient of static friction that is “substantially the same” as its low coefficient of dynamic friction.

26. Regarding claims 2 and 38, Garner discloses that the low frictional woven material may be rayon (column 4, lines 15-22) which has a coefficient of static friction and a coefficient of dynamic friction between itself and linen of less than 0.4 as evidenced by Warner (Table 14.2). The term “linen” has been given the broadest reasonable interpretation to mean “articles or garments made from linen *or a similar cloth, such as cotton; bed sheets or tablecloths*” as defined by the online American Heritage Dictionary. In the instant case, Warner teaches that the coefficient of static friction and the coefficient of dynamic friction between rayon and rayon, from which garments and bed sheets may be made, is 0.35 and 0.26, respectively.

27. Claims 1 and 34-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Berge (US Patent 4,051,565). Berge discloses an article (15), used as a slide sheet, comprising a medical protection sheeting formed from a relatively friction-free material (22) such as a woven nylon material (column 3, lines 38-40), wherein the relatively friction-free interior layer (22) of the tubular mat (15) would be capable of contacting a patient since the ends of the mat are open to the interior (Figs. 3-4). Further, regarding the limitation “a coefficient of static friction

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*substantially* the same as its coefficient of dynamic friction” has been given the broadest reasonable interpretation since there is no clear indication of what range of values would be encompassed by the phrase “substantially the same”. Therefore, for examination purposes, the above limitation has been understood such that a material that is “relatively friction-free” as disclosed by Berge will have a low coefficient of static friction that is “substantially the same” as its low coefficient of dynamic friction.

***Claim Rejections - 35 USC § 103***

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over DuPont as applied to claims 1 and 4 above, in view of DeBenedictis et al. (US Patent Pub. 2006/0252322). DuPont discloses the invention substantially as claimed, as described above, but fails to expressly teach that the weight of the material woven from the given fibers is between 50 and 200 g/m<sup>2</sup>. DeBenedictis discloses a material woven from DuPont yarn T743 woven in a plain weave pattern having a fabric weight of 183 g/m<sup>2</sup> (page 3, ¶ 42 -43; Table 2). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the material taught by DuPont to be woven in a plain weave pattern which will give it a fabric weight of between 50 and 200 g/m<sup>2</sup> as taught by DeBenedictis since such a weave pattern in nothing more than one of numerous patterns or configurations a person of ordinary skill in the art would find obvious for the purpose of weaving yarns together to form a fabric. Although the combination of DuPont and DeBenedictis fails to expressly teach that the

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material weight is  $180 \text{ g/m}^2$ , it would have been obvious to one having ordinary skill in the art to modify the weave pattern of the fabric taught by the combination of DuPont and DeBenedictis to achieve a fabric weight of  $180 \text{ g/m}^2$  since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

30. Claim 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garner as applied to claim 1 above, in view of DeBenedictis et al. (US Patent Pub. 2006/0252322), and in further view of Ochi et al. (US Patent 6,863,977). Garner discloses the invention substantially as claimed, as described above, and further teaches that the low frictional woven material may be polyester (column 4, lines 15-22). However, Garner fails to expressly teach that the material is woven from a yarn having a linear density between 40 and 1,000 decitex.

DeBenedictis discloses a polyester material woven from a yarn having a linear density between about 200 to 800 decitex (Abstract). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the substantially frictionless material of the medical protection sheeting taught by Neilson to be formed from a yarn having a linear density between 40 and 1,000 decitex as taught by DeBenedictis since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. However, the combination of Garner and DeBenedictis fails to teach that the material has a coefficient of static friction and a coefficient of dynamic friction between itself and linen of less than 0.4.

Ochi discloses a low frictional material having a coefficient of static friction and a coefficient of dynamic friction less than 0.4 by way of adjusting the cross-sectional shape and

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the surface morphology of the fibers and appropriately applying a lubricating substance to affect the desired low frictional properties (column 3, lines 20-46). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the substantially frictionless material of the medical protection sheeting taught by the combination of Garner and DeBenedictis to have coefficients of static and dynamic friction less than 0.4 by adjusting the fiber properties and/or applying appropriate lubrication as taught by Ochi since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

31. Claims 1, 8, 9, 16, 17, 20, 21, 27, 28, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuehnreich (US Patent 5,176,624), in view of Holt et al. (US Patent 5,778,565), and in further view of Garner (US Patent 5,329,655), as evidenced by Warner ("Fiber Science").

32. Regarding claims 1, 8, 16, and 27, Kuehnreich discloses a shoe bandage adapted to be worn over a foot bandage, foot injuries, or foot wounds, comprising a housing (1) for enveloping a foot having an interior and exterior surface; a first and second end located about the housing such that the first end is enclosed forming a toe and a second end includes an opening for receiving a foot; an external seam securing the housing of the boot from the first end to the second end; a slice (4) extending from the opening at the second end to a midsection of the boot; a plurality of straps (8, 9) encompassing the slice for the substantially closing and securing the slice about a foot (Figs. 3-7; column 3, line 54 – column 4, line 24). However, Kuehnreich fails to teach a collar surrounding the opening at the second end.

Holt discloses an orthopedic shoe (10) made of a woven material comprising a housing (14) and a collar (28a/28b) surrounding an opening at a second end for receiving a foot of a

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user (Figs. 1-2; column 2, lines 51-57; column 4, lines 50-52). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the shoe bandage taught by Kuehnreich to further comprise a collar as taught by Holt for the purposes of securing the shoe around the user's ankle. However, the combination of Kuehnreich and Holt fails to teach that the housing is made from a low frictional material with a coefficient of static friction substantially the same as its coefficient of dynamic friction.

Garner discloses a medical protection sheeting (15) formed from a low frictional material for enabling easy movement over a surface of the sheeting (column 3, lines 66-67; column 4, lines 15-22). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the housing of the shoe bandage taught by the combination of Kuehnreich and Holt to be made from a low frictional material as taught by Garner for the purpose of enabling the user to easily apply the shoe bandage over a foot bandage or injured foot. Further, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. The limitation "a coefficient of static friction *substantially* the same as its coefficient of dynamic friction" has been given the broadest reasonable interpretation since there is no clear indication of what range of values would be encompassed by the phrase "substantially the same". Therefore, for examination purposes, the above limitation has been understood such that a "low frictional material" as disclosed by Garner will have a low coefficient of static friction that is "substantially the same" as its low coefficient of dynamic friction. Since the shoe bandage taught by the combination of Kuehnrieck / Holt / Garner is made from a single layer of material, both in the interior and exterior surfaces may have the same properties with respect to their coefficients of friction.

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33. Regarding claims 20, 21, and 31, the combination of Kuehnriech / Holt / Garner discloses the invention substantially as claimed, and Garner further teaches that the low frictional material may comprise woven rayon (column 4, lines 17-20) which has a coefficient of static friction and a coefficient of dynamic friction between itself and linen of less than 0.4 as evidenced by Warner (Table 14.2). The term "linen" has been given the broadest reasonable interpretation to mean "articles or garments made from linen *or a similar cloth, such as cotton; bed sheets or tablecloths*" as defined by the online American Heritage Dictionary. In the instant case, Warner teaches that the coefficient of static friction and the coefficient of dynamic friction between rayon and rayon, from which garments and bed sheets may be made, is 0.35 and 0.26, respectively.

34. Regarding claims 9, 17, and 28, Kuehnriech discloses that the shoe bandage can be formed with a cutout (23) for the toes capable of ventilation (column 4, lines 40-42).

35. Claims 18, 19, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuehnriech, in view of Holt, in further view of Garner as applied to claims 16 and 27 above, and in even further view of Cole et al. (US Patent 6,588,237). The combination of Kuehnriech / Holt / Garner discloses the invention substantially as claimed, as described above, and Garner further teaches that low frictional material may comprise polyester (column 4, lines 17-19). However, the combination of Kuehnriech / Holt / Garner fails to expressly teach that the sheeting includes a yarn having a linear density between 40 and 1,000 decitex. Cole discloses a polyester fabric woven from a yarn having a linear density of about 50 decitex (column 2, lines 14-32). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the material of the shoe bandage taught by the combination of Kuehnriech / Holt / Garner to use a polyester yarn having a linear density of about 50 decitex as



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taught by Cole since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

36. Claims 22 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuehnrieck in view of Holt and Garner as applied to claims 16 and 27 above, in further view of Cole as applied to claims 18, 19, and 30 above, and in even further view of DeBenedictis et al. (US Patent Pub. 2006/0252322). The combination of Kuehnrieck / Holt / Garner / Cole discloses the invention substantially as claimed, as described above, but fails to expressly teach that the weight of the sheeting is between 50 and 200 g/m<sup>2</sup>.

DeBenedictis discloses a polyester plain weave fabric having a weight between 50 and 200 g/m<sup>2</sup> (Abstract). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the material taught by the combination of Kuehnrieck / Holt / Garner / Cole to be woven in a particular pattern which will give it a fabric weight of between 50 and 200 g/m<sup>2</sup> as taught by DeBenedictis since such a pattern in nothing more than one of numerous configurations a person of ordinary skill in the art would find obvious for the purpose of weaving yarns together to form a fabric. Further, the fabric weight is a result effective variable of the particular weave pattern used to form the fabric given a particular fiber material such that it would have been obvious to one having ordinary skill in the art to modify a weave pattern of the fabric taught by the combination of Kuehnrieck / Holt / Garner / Cole / DeBenedictis to achieve a fabric weight between 50 and 200 g/m<sup>2</sup> since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

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37. Claims 26 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neilson (US Patent 3,849,813), in view of DeBenedictis et al. (US Patent Pub. 2006/0252322), and in further view of Ochi et al. (US Patent 6,863,977). Neilson discloses a method of limiting epidermal damage or reducing risk of damage to skin of patients in areas where the skin is damaged or where skin is subject to pressure, the method comprising the steps of providing a medical protection sheeting (10) having first and second surfaces fabricated from a substantially frictionless material and covering a patient's skin with a portion of one of the first and second surfaces of the medical protection sheeting, wherein the substantially frictionless material may comprise any natural or synthetic substantially frictionless material (Figs. 1-2; column 1, lines 32-42 & 62-68; column 2, lines 1-4 & 47-53).

The limitation "a coefficient of static friction *substantially* the same as its coefficient of dynamic friction" has been given the broadest reasonable interpretation since there is no clear indication of what range of values would be encompassed by the phrase "substantially the same". Therefore, for examination purposes, the above limitation has been understood such that a "substantially frictionless material" as disclosed by Neilson will have a low coefficient of static friction that is "substantially the same" as its low coefficient of dynamic friction. However, Neilson fails to expressly teach that the sheeting has a weight between 50 and 200 g/m<sup>2</sup> and is woven from a yarn having a linear density between 40 and 1,000 decitex.

DeBenedictis discloses a polyester material having a weight between 150 to 300 g/m<sup>2</sup> and a yarn with a linear density between about 200 to 800 decitex (Abstract). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the substantially frictionless material of the medical protection sheeting taught by Neilson to be formed from a yarn having a linear density between 40 and 1,000 decitex as taught by DeBenedictis since it has been held to be within the general skill of a worker in the art to select

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a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the material taught by the combination of Neilson and DeBenedictis to be woven in a particular pattern which will give it a fabric weight of between 50 and 200 g/m<sup>2</sup> as further taught by DeBenedictis since such a pattern in nothing more than one of numerous configurations a person of ordinary skill in the art would find obvious for the purpose of weaving yarns together to form a fabric. The fabric weight is a result effective variable of the particular weave pattern used to form the fabric given a particular fiber material such that it would have been obvious to one having ordinary skill in the art to modify a weave pattern of the fabric taught by the combination of Neilson and DeBenedictis to achieve a fabric weight between 50 and 200 g/m<sup>2</sup> since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). However, the combination of Neilson and DeBenedictis fails to expressly teach that the substantially frictionless material has a low coefficient of friction that is less than 0.4 and the coefficient of static friction is within 20% of the coefficient of dynamic friction.

Ochi discloses a relatively friction-free material having a low coefficient of friction less than 0.4 and a coefficient of static friction within 20% of the coefficient of dynamic friction by way of adjusting the cross-sectional shape and the surface morphology of the fibers and appropriately applying a lubricating substance to affect the desired low frictional properties (column 3, lines 20-46). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the substantially frictionless material of the medical protection sheeting taught by the combination of Neilson and DeBenedictis to have a low coefficient of friction that is less than 0.4 and the coefficient of static friction is within 20% of the

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coefficient of dynamic friction by adjusting the fiber properties and/or applying appropriate lubrication as taught by Ochi since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

38. Claims 26 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neilson (US Patent 3,849,813), in view of DeBenedictis et al. (US Patent Pub. 2006/0252322), and in further view of Ochi et al. (US Patent 6,863,977). Neilson discloses a method of limiting epidermal damage or reducing risk of damage to skin of patients in areas where the skin is damaged or where skin is subject to pressure, the method comprising the steps of providing a medical protection sheeting (10) having first and second surfaces fabricated from a substantially frictionless material and covering a patient's skin with a portion of one of the first and second surfaces of the medical protection sheeting, wherein the substantially frictionless material may comprise any natural or synthetic substantially frictionless material (Figs. 1-2; column 1, lines 32-42 & 62-68; column 2, lines 1-4 & 47-53).

The limitation "a coefficient of static friction *substantially* the same as its coefficient of dynamic friction" has been given the broadest reasonable interpretation since there is no clear indication of what range of values would be encompassed by the phrase "substantially the same". Therefore, for examination purposes, the above limitation has been understood such that a "substantially frictionless material" as disclosed by Neilson will have a low coefficient of static friction that is "substantially the same" as its low coefficient of dynamic friction. However, Neilson fails to expressly teach that the substantially frictionless material has a coefficient of static friction no more than 20% of a coefficient of dynamic friction.

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Ochi discloses a low frictional material having a coefficient of static friction no more than 20% of a coefficient of dynamic friction by way of adjusting the cross-sectional shape and the surface morphology of the fibers and appropriately applying a lubricating substance to affect the desired low frictional properties (column 3, lines 20-46). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the substantially frictionless material of the medical protection sheeting taught by Neilson to have a coefficient of static friction no more than 20% of a coefficient of dynamic friction by adjusting the fiber properties and/or applying appropriate lubrication as taught by Ochi since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### ***Response to Arguments***

39. Applicant's arguments filed August 18, 2010 have been fully considered but they are not persuasive.

40. In response to Applicant's argument that DuPont does not disclose "a patient contacting surface", the examiner disagrees. DuPont discloses a woven material (airbag) made from various fibers or yarns. The woven material has a surface exposed to the surrounding environment such that when brought into the vicinity as a patient, the surface may be capable of coming into contact with that patient. Therefore, the woven material taught by DuPont has a patient contacting surface. It is noted that the limitations "medical protection sheeting" and "patient contacting surface" are recitations of the intended use of the claimed invention which must result in a *structural difference* between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

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41. In response to Applicant's argument that the coefficient of a yarn can be expected to be different from a fabric made from the yarn, it is noted that the frictional properties of fabric depend not only from the type of yarn but also the weave pattern, any coatings, etcetera (as also noted in the declaration), which have not been disclosed in the specification or the recited in the claims. Therefore, as best can be understood by the claims, the fabric recited in the claims may have any weave pattern, may or may not be coated with a lubricant, etcetera, and one having ordinary skill in the art would recognize that a fabric can be made having the same friction properties as the yarn of which is it made.

42. In response to Applicant's argument that DuPont fails to disclose that the coefficient of static friction is substantially the same as the coefficient of dynamic friction, it is noted that there is no clear indication of what range of values would be encompassed by the phrase "substantially the same" such that a low frictional material as disclosed by the fibers of DuPont will have a low coefficient of static friction that is "substantially the same" as its low coefficient of dynamic friction. It is noted that Applicant has disclosed in the specification that the fibers 470T473 and 350T749 made by DuPont are appropriate materials that may be woven into a material having a coefficient of static friction substantially the same as a coefficient of dynamic friction.

43. In response to Applicant's argument that Berge is directed to a high frictional patient contacting surface and does that the relatively friction-free material cannot contact a patient, the examiner disagrees. Although the relatively friction-free material forms the interior surface of the tubular mat, a patient is still capable of coming into contact with the interior surface of the mat via one of the open ends (Figs. 3-4). And although Berge also teaches a high frictional surface that is also capable of coming into contact with a patient, this is not precluded by the claims. The limitation "a patient contacting surface" is *not a structural limitation* and imparts no

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additional structure to the claimed sheeting but rather the limitation is a recitation of the intended use of a surface of the claimed invention. A recitation of the intended use of an invention must result in a *structural difference* between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

44. In response to Applicant's argument that Berge fails to disclose patient contact with the low friction surface, it is noted that the features upon which Applicant relies (i.e., patient contact) are not recited in the rejected device claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). "Patient contact" is a condition of use and not a structural limitation of a device claim. Therefore, the argument of inherency regarding whether or not the low friction surface actually contacts a patient is not applicable to the device claims. On the contrary, the recitation of "patient contact" has a positively recited step in a method claim would need to be taught by the prior art in order to anticipate the method claims. As such, the reference of Neilson expressly teaches a patient contact surface of which a patient actually contacts as discussed above in this Office action.

45. In response to Applicant's argument that the examiner's interpretation of the term "linen" is inconsistent with the knowledge of those skilled in the art, the examiner disagrees. While the term "linen" may be construed to only be limited to "threads made from fibers of the flax plant", Applicant has not expressly limited the use of the term "linen" to only this definition in the disclosure such that the claims may be interpreted more broadly to cover other definitions of "linen" such as "articles or garments made from linen or a similar cloth, such as cotton; bed sheets and tablecloths." Applicant's argument is more narrow than what is recited in the rejected claims or disclosed in the specification.

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46. In response to Applicant's argument that Garner fails to disclose that the "slick fabric" has a coefficient of static friction substantially the same as its coefficient of dynamic friction, the examiner disagrees. First, since the rejected claims do not recite what range of values would be encompassed by the phrase "substantially the same", the limitation has therefore been given the broadest reasonable interpretation such that the "low frictional material" as disclosed by Garner will have a low coefficient of static friction that is "substantially the same" as its low coefficient of dynamic friction. Second, it is noted that coefficients of static and dynamic friction depend on a variety of factors and variables including but not limited to surface treatments (i.e., lubricants, etc.), direction of rubbing, and type of material being rubbed against. Therefore, merely claiming a general coefficient of friction without parameters of the conditions determining the coefficient is broad and may be easily modified by altering the above mentions variables.

47. In response to Applicant's argument that Garner fails to teach that the low-frictional material has a patient contact surface, the examiner disagrees. The outer surface (15) is clearly capable of contacting a patient as a matter of intended use. Further, it is noted that the patient contact surface is not required to come into direct contact with the patient by the current claim language of the device claims.

48. The examiner recognizes Applicant's assertion that an "elastic type bandage material" as disclosed by Kuehnriech is typically associated with characteristics of a high coefficient of friction; however absent any evidence to support Applicant's conclusory statement, the examiner notes that the above rejection is maintained.

***Requirement for Information under 37.105***



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Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

In Applicant's disclosure, Applicant presents that the yarns suitable for forming the fabric in the disclosed invention are identified by DuPont product numbers T743, T749, and 98West/4.

In response to this requirement, please provide the names of any products or services that have incorporated the claimed subject matter. Applicant is required to provide **Any and All** documentation that they are aware of regarding DuPont's development and prior use of the materials identified by DuPont product numbers T743, T749, and 98West/4.

Applicant is also required to provide **Any and All** known documentation of Applicant's agreements with DuPont that they have regarding their agreements with DuPont to perform this testing for the preferred use of the materials identified by DuPont product numbers T743, T749, and 98West/4.

Applicant is also required to provide **Any and All** known documentation of Applicant's and/or DuPont's common testing under their agreement with DuPont performed for the preferred use of the materials identified by DuPont product numbers T743, T749, and 98West/4.

Applicant is also required to provide **Any and All** known documentation that set forth facts that support Applicant's argument that the materials identified in applicant's specification by DuPont product numbers T743, T749, and 98West/4 were not commercially available prior to the priority date of the instant application.

Applicant is also required to provide **Any and All** known documentation that set forth facts that support Applicant's argument that the materials identified in applicant's specification by DuPont product numbers T743, T749, and 98West/4 were not known to use the example materials as medical protection sheeting.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KERI NELSON whose telephone number is (571)270-3821. The examiner can normally be reached on Monday - Thursday, 9am-4pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco, can be reached on 571-272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KJN  
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Examiner, Art Unit 3772  
5/16/2011

/Patricia Bianco/  
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